

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A phosphor having a substantially spherical outer shape, which comprises:

primary particles having a median diameter D_{50} in a range of from 0.05 μm to 1 μm and

secondary particles having a median diameter D_{50} in a range of from 0.1 μm to 2 μm , wherein at least 50 vol% of the total secondary particles has an aspect ratio of at least 0.8[[],]

and an internal quantum efficiency is in a range of from 0.8 to 1,

wherein a [[the]] matrix crystal of the phosphor contains at least one element selected from the group consisting of Li, Na, F and Cl in an amount ranging from 0.1 to 100 ppm.

Claim 2 (Original): The phosphor according to Claim 1, wherein the phosphor comprises a matrix crystal containing oxygen as an element constituting the matrix crystal and at least one element selected from the group consisting of Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Er, Tm, Yb, As, Bi, Cr, Cu, Fe, Mn, Pb, Sb, Sn, Ti, Tl, V, W and Zn as an activator.

Claim 3 (Original): The phosphor according to Claim 2, wherein the matrix crystal comprises Ln_2O_3 , LnXO_4 or LnBO_3 , in which Ln represents an element group containing an element selected from the group consisting of La, Gd, Y, Lu and Sc in an amount of at least 80 mol% to the total amount of Ln and X represents P and/or V.

Claim 4 (Original): The phosphor according to Claim 2, wherein the matrix crystal comprises $a\text{MO} \cdot b\text{A}_2\text{O}_3$, in which a and b are integers of from 1 to 5,

A represents an element group containing an element selected from the group consisting of B, Al and Ga in an amount of at least 80 mol% to the total amount of A, and

M represents an element group containing an element selected from the group consisting of Ba, Sr, Ca, Mg and Zn in an amount of at least 80 mol% to the total amount of M.

Claim 5 (Previously Presented): The phosphor according to Claim 1, wherein the matrix crystal of the phosphor contains Li in an amount ranging from 0.1 to 100 ppm.

Claim 6 (Previously Presented): The phosphor according to Claim 1, wherein the matrix crystal of the phosphor contains Na in an amount ranging from 0.1 to 100 ppm.

Claim 7 (Previously Presented): The phosphor according to Claim 1, wherein the matrix crystal of the phosphor contains F in an amount ranging from 0.1 to 100 ppm.

Claim 8 (Previously Presented): The phosphor according to Claim 1, wherein the matrix crystal of the phosphor contains Cl in an amount ranging from 0.1 to 100 ppm.

Claim 9 (Previously Presented): The phosphor according to Claim 1, wherein the matrix crystal of the phosphor contains at least one element selected from the group consisting of Li, Na, F and Cl in an amount ranging from 0.1 to 10 ppm.

Claim 10 (Previously Presented): The phosphor according to Claim 3, wherein the matrix crystal comprises Ln_2O_3 .

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Claim 11 (Previously Presented): The phosphor according to Claim 3, wherein the matrix crystal comprises LnXO_4 , and X represents P and/or V.

Claim 12 (Previously Presented): The phosphor according to Claim 3, wherein the matrix crystal comprises LnBO_3 .

Claim 13 (Previously Presented): The phosphor according to Claim 4, wherein A represents an element group containing B.

Claim 14 (Previously Presented): The phosphor according to Claim 4, wherein A represents an element group containing Al.

Claim 15 (Previously Presented): The phosphor according to Claim 4, wherein A represents an element group containing Ga.

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